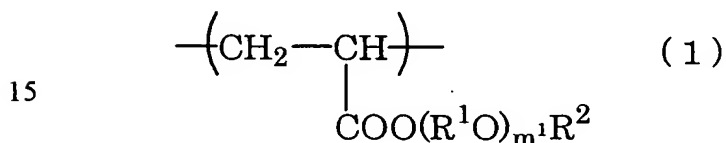


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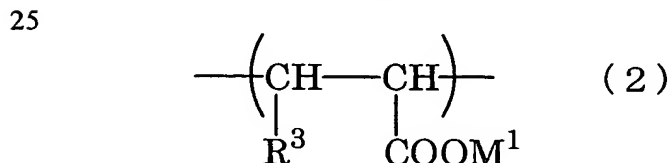
1. A polycarboxylic acid cement dispersant
 which provides a cement composition having a penetration
 resistance value exponent of 55 MPa or more and a slump retention
 5 exponent of 80% or more.

2. The polycarboxylic acid cement dispersant according
 to claim 1,
 wherein the polycarboxylic acid cement dispersant
 10 comprises a polycarboxylic acid polymer having
 a polyoxyalkylene ester constituent unit (I) represented
 by the following general formula (1):



(wherein R^1O may be the same or different and each represents
 an oxyalkylene group containing 2 to 18 carbon atoms; m^1
 represents the average molar number of addition of the
 20 oxyalkylene groups and is a number of 100 to 200; and R^2 represents
 a hydrogen atom or a hydrocarbon group containing 1 to 3 carbon
 atoms), and

a carboxylic acid constituent unit (II) represented by
 the following general formula (2):



(wherein R^3 represents a hydrogen atom, a methyl group or $-\text{COOM}^2$;
 30 and M^1 and M^2 may be the same or different and each represents
 a hydrogen atom, a monovalent metal, a divalent metal, ammonium
 or organic ammonium).

3. A method of producing a concrete product
 35 which comprises a process of curing under a condition of

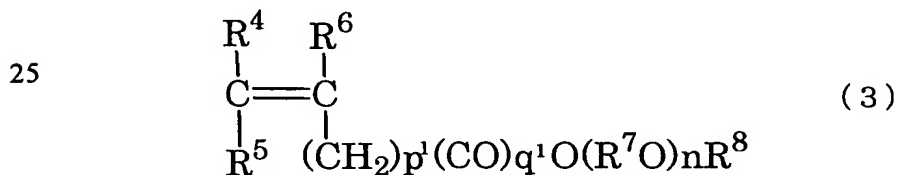
a temperature of 30°C or more, using the polycarboxylic acid cement dispersant according to claim 1.

4. A method of producing a concrete product
 5 which comprises a process of curing under a condition of a temperature of 30°C or more, using the polycarboxylic acid cement dispersant according to claim 2.

5. A method of producing a concrete product
 10 which comprises a process of curing by covering a periphery of a formwork with an insulating material, using the polycarboxylic acid cement dispersant according to claim 1.

6. A method of producing a concrete product
 15 which comprises a process of curing by covering a periphery of a formwork with an insulating material, using the polycarboxylic acid cement dispersant according to claim 2.

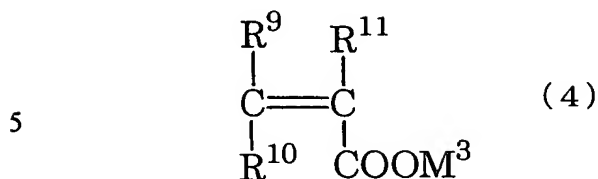
7. A method of producing a concrete product
 20 which makes use of a copolymer derived by using monomer components comprising a monomer (A) represented by the following general formula (3):



(wherein R⁴, R⁵ and R⁶ may be the same or different and each represents a hydrogen atom or a methyl group; p¹ represents a
 30 number of 0 to 2; q¹ represents a number of 0 or 1; R⁷O may be the same or different and each represents an oxyalkylene group containing 2 to 18 carbon atoms; n represents the average molar number of addition of the oxyalkylene groups and is a number of 2 to 300; and R⁸ represents a hydrogen atom or a hydrocarbon
 35 group containing 1 to 30 carbon atoms),

a monomer (B) represented by the following general formula

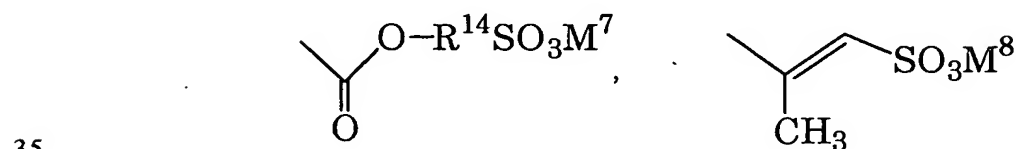
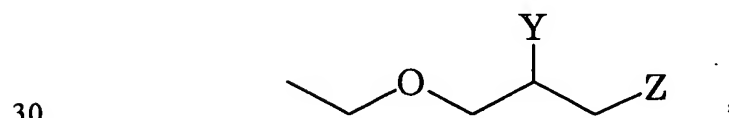
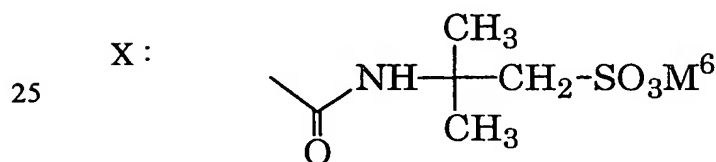
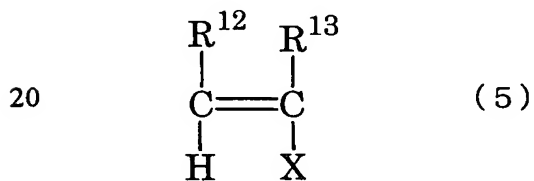
(4):



(wherein R^9 and R^{10} may be the same or different and each represents a hydrogen atom, a methyl group or $-\text{COOM}^4$, provided that R^9 and R^{10} does not simultaneously represent $-\text{COOM}^4$; R^{11} represents a hydrogen atom, a methyl group or $-\text{CH}_2\text{COOM}^5$, in which in the case where R^{11} represents $-\text{CH}_2\text{COOM}^5$, R^9 and R^{10} may be the same or different and each represents a hydrogen atom or a methyl group; and M^3 , M^4 and M^5 may be the same or different and each represents a hydrogen atom, a monovalent metal, a divalent metal, ammonium or organic ammonium), and

a monomer (C) represented by the following general formula

(5):



(wherein R^{12} and R^{13} may be the same or different and each represents a hydrogen atom or a methyl group; Y and Z represent a hydroxyl group or $-SO_3M^9$, in which in the case where Y represents a hydroxyl group, Z represents $-SO_3M^9$, while in the case where Y represents $-SO_3M^9$, Z represents a hydroxyl group; R^{14} represents an alkylene group containing 2 to 4 carbon atoms; and M^6 , M^7 , M^8 and M^9 may be the same or different and each represents a hydrogen atom, a monovalent metal, a divalent metal, ammonium or organic ammonium),

wherein the mass ratio of the monomer (C) relative to the total monomer components is not less than 0.1% by mass and not more than 35% by mass.

8. The method of producing a concrete product according to claim 7,

which comprises a process of curing under a condition of a temperature of 30°C or more.

9. The method of producing a concrete product according to claim 7,

which comprises a process of curing by covering a periphery of a formwork with an insulating material.